

## Phenomenology and Neuroaesthetics

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It has been recently claimed that the achievements of neuroscience in the last two decades have engendered a full «neuroculture», grounded in its turn on an anthropologic revolution, i.e. a new understanding of human beings relying essentially on cerebral terms. Analogously, the anthropologist Fernando Vidal, wrote: «If *personhood* is the quality or condition of being an individual person, *brainhood* could name the quality or condition of being a brain» (Vidal [2009]: 5). Such an «ontological quality» defines a «cerebral subject», increasing signs of which could be detected since the mid-20<sup>th</sup> century, «at least in industrialized and highly medicalized societies». In short, for the inhabitant of western industrialized and medicalized societies it has become increasingly easier to claim «I am my brain».

Upon such an abundance of researches and opinions there is no point in polemicizing. More fruitfully, we shall recall, by means of a short premise, that the philosophical tradition called «phenomenology» claims a different path. While cognitive science aims at «explaining», phenomenology instead wishes to «describe». Every detectable connection between the two mentioned disciplines – granted for the sake of argument – cannot avoid acknowledging such a premise. We shall then identify two distinct, if not antagonist, grounds, as we recall that, according to Husserl, the scientific task of philosophy is not to «explain», since it cannot adopt one and only point of view, and then reduce to it the philosophical interpretation of the world. The essence of the human mind, therefore, should not be limited to the brain, whenever aiming at «explaining» our behaviour in particularly poignant fields such as ethics, economics, aesthetics, politics, and also marketing, theology, literary criticism, and so on. Nevertheless, on this ground, a series of (new)<sup>1</sup> disciplines has

<sup>1</sup> However, one may wonder if we really meet new disciplines or rather new names for neuropsychology's traditional enquiries. Recently Legrenzi and Umiltà (2009) have fiercely

flourished – identified by the prefix «neuro» as in neuroethics, neuroeconomics, neuroaesthetics and so on.

We shall here briefly focus on the latter discipline, neuroaesthetics, avoiding any diminishing evaluation of its results, and just setting some borders and boundaries, in order to preserve the complexity of the phenomenological approach from the exaltation of the empirical research.

The relationship between philosophy and neuroscience can be disparately judged, and no definitive opinion should be embraced. However, some concerns are raised by the attempt to connect neuroscience's perspective with phenomenology. Vittorio Gallese is probably right when he claims, implicitly referring to Varela<sup>2</sup>, that it is much more interesting to «phenomenologize Cognitive Neuroscience, rather than naturalizing phenomenology». However, the issue is now to understand what does this «phenomenologization» mean, and whether or not it is actually possible. Granted, for the sake of argument, that we agree with Gallese when he claims that the formula means to employ «several aspects of phenomenology's claims on the lived body and on its role in the constitution of our reality, in particular in the constitution of our intersubjective reality» (Gallese [2006]: 294; my transl.), nevertheless we shall investigate to what extent the very «constitution» of the body and of the intersubjectivity are the actual grounds on which some approaches of neuroscience end up drifting very far from the not-causal descriptivism of phenomenology.

It is furthermore self-explanatory why phenomenology should represent, roughly, a favoured reference for neuroscience. First, phenomenology, as it is well known, investigates the structure of experience on the descriptive ground. The task would then simply amount to an extension of such a ground of enquiry to new realms. Moreover, the discovery of mirror neurons was placed – sometimes with the exaggeration of journalistic simplifications – within the conceptual framework of empathy, considering this very term – actually rather questionable (as we shall see) – an essential reference point of the phenomenological tradition. Thus, many topics of interest can be taken as common to both disciplines as also neuroscience has been dealing with the lived body and the spacial experience, with the first person methodology of research,

attacked the neuro-disciplines. For a series of answers and raised debates see the contributions collected by *Giornale Italiano di Psicologia*, 2, 2009, pp. 261-346.

<sup>2</sup> The reference is to the huge endeavour of Francisco Varela, to whom we owe the term «neuro phenomenology». Besides the essay in the collection edited by Cappuccio, see at least Varela (1979, 1989).

with temporalization, temporality, consciousness and, precisely, with empathic phenomena, seasoning the whole discourse with a generic reference to a «return to Husserl», trivialized as a return to «things in themselves».

However, within such a framework, what Varela himself called the «difficult issue», i.e., the issue of the genesis of consciousness, can be clearly detected. Phenomenology is not the simple description of a fact, but rather the description of an intentional immanent moment, and it presents itself as a science of essences, and not of matter of facts. Hence, the conclusive statement of Gallese's essay – «we should switch from the study of the human *mind* to the study of the human *minds*» (Gallese [2006]: 321) – does not rely on a phenomenological ground, but rather on an empirical parcelling out of the enquiry on the multiplicity of the profiles of cortical activation.

However, this is not the only critical point, despite the strong concerns it raises, due to the medley of the empirical descriptivism of phenomena and the ground of phenomenological research. There is, indeed, a more general methodological issue. According to the phenomenological approach, the descriptive method must conform to what things actually are «for us», beyond their abstract «transcendence», their metaphysics or empirical «presence». «Phenomena» are not studied in isolation or parcelling out, but rather through their modes of appearance, the conditions of possibility constituting their essence.

The relevance of neuroscience, dealing with the nervous basis of cognitive, affective and emotional mental processes, should not be questioned. And it shouldn't be denied as well – beyond every excess of optimism – that the field of neuro-images can be rather helpful along this direction. Provided, however, that this sort of trespassing do not subvert the meaning of what is enquired and the different specificity of methods. Umiltà has claimed that «the most important is that everybody deals with the issue he is specifically competent for. Unfortunately this rarely happens within the new neuro+ disciplines. Take, for instance, neuroeconomics. The goal of this discipline is to detect the nervous structures involved in the mental processes that are relevant to economics' behaviours. Generally, economists and neuroscientists do not have specific competence in the field of mental processes. All the same, there is nothing special in the mental processes that are relevant to economics: they are the same involved in any other human activity» (Umiltà [2009]; my transl.). Hence, precisely, in order to understand a phenomenon, one can refer to the studies of neuropsychology

concerning cognitive and decisional processes, without making reference to neuro-images, or to imaginary revivals of ancient philosophical disciplines.

Such is possibly the case of the so-called neuroaesthetics. As anticipated above, the topic of «empathy», specifically in its «phenomenological» version, has been considered a favoured route to the field of aesthetics. However, this is due exclusively to the methodological misunderstanding mentioned above. The axiological ground, i.e. the evaluation of the stance of the work of art, as well as of its meaning in terms of expression and knowledge, places in empathy, as Husserl explains, just an initial step. Thus we should not forget that the meaning of things lies in what they are, and that the feeling things raise is indeed a necessary condition, however not a sufficient one, for the understanding of their complex stratification of meaning. Also concerning the constitution of intersubjectivity, empathy represents a corporeal ground that is only the base of more complex motivational and spiritual relationships. We shall moreover take into account that Husserl deals with this issue precisely in order to question its central position within Lipps' psychologism. The latter, as every psychological understanding not suitably limited, opened the way only to the objectivating ingenuousness of the empirical actual idealism, unable to grasp the stratification of sense in the world disclosed instead by the intentional approach. Furthermore, we should not forget that, exception made for its main interpreters, through many recent inattentive popularizers, the term «empathy» has been generalized and substantially reduced, with little awareness, to Lipps' definition of it<sup>3</sup>.

Therefore the reduction of empathy to mirror neurons amounts to an «objectivisation», with the consequent absolutisation of a process that is a function of the *Leib* as intentional subject, not as a physical reality. The *Leib*, the lived body of the phenomenological tradition, is not – although this aspect is often overlooked – a generic corporeal reality, but rather an *intentional subject*, a transcendental reference point, an I-can as condition of possibility, on the base of which the connections between physical body and psychic body should be grasped. In brief, regardless of the debate on the «existence» of such neurons, the link established between them and the phenomenon of «symbolic sympathy», allowing to «recognize» the other on the emotional ground as well as the expressivity of an object, is not convincing. Indeed,

<sup>3</sup> This is not the case of the important study by L. Boella (2008), that is an example of methodological rigorousness and consistent theoretical analysis of the contributions of neuroscience to enquiries in the field of ethics. Concerning the unaware legacy of Lipps on some recent positions see the essay by E. Costa in this volume.

the essential of the empathic relation, i.e. the acknowledgement of the «value» of the object as specific meaning for an aesthetic, cultural, spiritual intersubjectivity, is not «played» on the above mentioned ground. The formulation of the issue of empathy within the «experimental» approach entails then the risk to «miss» the very epistemological stance of the researches concerning complex cultural objects, that resist to any «reduction» to cerebral mechanisms (for that matter unable to «recognize» value, then prevented from shifting from the neuronal moment to the establishment of the axiological process that is essential to the correct affective and expressive acknowledgement).

The requirement, more than once recalled by Gallese, to deal with complex issues from different perspectives, should not become an abstract superposition of grounds, or, as already spotted, the ingenuous advocacy of «new alliances», or even the ideological de-contextualisation of theories – sometimes even of single sentences – derived from incompatible premises. To the aim of understanding the sense of the aesthetic-expressive representations, we shall therefore claim that discoveries such as that of mirror neurons are of little help, exactly as, to the same aim, of little help would be the discovery of water on Mars. The fact that these cerebral mechanisms have an impact on our sensibility's system does not mean – and this is true for the whole of neuroscience – that they have whatsoever impact on the representation and judgement, where one cannot overlook the lived body and its position in the world, but certainly can overlook the objectivated «mechanisms» that reduce its genetic and formative power.

When Gallese claims<sup>4</sup> that today «we know why» the constitutive ground of every perception takes shape, and he answers to such a «why» pointing at mirror neurons, he departs from the phenomenological method. Such a method is not indeed interested in providing answers to «why» questions – notoriously referring only to the «how» – since it claims that it is impossible to provide a «physical» answer to an issue entailing a series of layers and levels of «being in the world». Phenomenology as practiced in this field investigates, therefore, as Husserl would claim, exclusively the mechanisms of the *Körper* that pertain to the «causal» layer of our corporeal complexity. The several layers are not in opposition with one another, however they should neither be «explained» one with the other; consistently, a multiplicity of

<sup>4</sup> See the still unpublished contribution by V. Gallese, *Neuroscienze e Fenomenologia*, forthcoming in «Enciclopedia Treccani» (my transl.).

perspectives is required, but not their more or less objectivated «synthesis». We shall moreover remark that the perception of the other, whenever intended to grasp its several levels of aestheticity, should not limit itself to be an embodied and «recognized» tactile experience. Hence, it could be true, as Gallese claims, that the embodied simulation, that is not an exclusive prerogative functional to body movement, «is able to provide a functional substrate that is common to different aspects of intersubjectivity» (Gallese [forthcoming]). However, it is also true that intersubjectivity does not constitute itself only on such a substrate, and that the sense of the other, as *Leib* and as *Geist*, cannot rely exclusively on a physical-motor ground, if not mixing functionality up with performance. As emphasized from several sides (Jacob, Legrenzi and Umiltà), and as Gallese himself remarks, «the embodied simulation and the system of multiplicity it engenders do not constitute the only functional mechanism on which intersubjectivity is grounded» (Gallese [forthcoming]).

The prefix «neuro» preceding the word aesthetics, when confronted with the history of the discipline, and its intrinsic scientific tradition, appears to be just a popular unjustified generalization, explaining nothing (see Legrenzi, Umiltà [2009]: 93). Furthermore, against this kind of approach – supported *in primis* by Zeki, – Freedberg and Gallese (who carefully avoid the use of the term «neuroaesthetics») pursue a rather different strategy, starting once more from the phenomenological tradition: «First, we “bracket” the artistic dimension of visual works of art and focus on the embodied phenomena that are induced in the course of contemplating such works by virtue of their visual content» (Gallese, Freedberg [2007]: 197). Indeed, despite the embodied simulation does not reveal anything nor on the expressive meaning nor on the value of a work of art, nor on the historical-genetical processes leading to the connected judgement, it constitutes however a «genetic» perspective, concerning the physical genesis though, on a process that is able to account for the relevance of a figurative representation (on this ground, not yet «artistic» though).

Zeki's writings, instead, maybe interesting for a neurologist, are not of great interest for a philosopher. The claim that the function of art amounts to an extension of the cerebral functions aiming at acquiring knowledge of the world, means to rely on a «generalized functionalism» that could be applied to any field of the human activity and knowledge. Its premises – that visual arts should obey to the laws of visual brain, both in fruition and in creation; that visual arts are the extension of the visual brain whose function is to acquire new knowledge; that artists

are somehow neurologists studying the visual brain's abilities with peculiar techniques – could all be questioned or downplayed. Even if «true», they do not entail any cognitive increment on the complex sense of the artistic fact and of the phenomena of fruition, despite their relevance for the neurologist, in particular whenever they enquire, as Maffei does, the relationship between the neurophysiology of vision and our experience of colour in the static images of paintings, or the dynamic images of cinema and television.

Theories such as Maffei's have a more refined position in the elucidation, within the framework of the relationship between philosophy, creativity and neuroscience, of the bodily dynamics of the expressive processes of experience. No «explanatory» path is triggered here, but rather it is the path pointed by Merleau-Ponty to be followed, beyond useless theoretical links, as indeed things in themselves point in that direction. For many artists, as for instance for Pollock, the non-representational dimension of a painting is not merely accidental (also monkeys, Maffei remarks, scribble according to not fully casual motor procedures), but it rather originates from a motor memory implicit in the body and in the relationships developed within it. The painter, Maffei writes «pours onto the canvas unconscious mental images, nestled in his nervous-motor structures», that in Pollock's paintings become, for instance, «dancing around the canvas». Thus a form of recognition is introduced, that is not «intellectual», i.e. representative, but rather somehow «pre-categorical». The point is not to «explain» empathy and its role, but rather to acknowledge that corporeal bonds with things permeate *every* function of the body, also those that cannot be reported to formal categories of the intellect: «They are the reality of our motor memory; they are the familiar gestures of dance, becoming images, paint» (Maffei [2007]: 80; my transl. See also Maffei, Fiorentini [2005]).

Similarly, when Freedberg dwells on empathy, or Gallese on the embodied movement grounding it, not to mention the interesting remarks by Stefano Cappa, who lucidly claims that the life-world is the new threshold of neurobiology research (see S.F. Cappa [2007]), a new perspective is opened up accounting for the world as an autonomous intersecting of various horizons of meaning. The intention is not to «define», nor in the least to introduce causal principles. The fact that certain things do not happen «by chance», does not mean that their origin depends on one single serial causal mode. The recognition of a painting, be it in «representative» mode or in «empathic-corporeal» mode, as soon as it attests the functional complexity of the components entailed by the realm of judgement, or by the identification of an

expressive and axiological content, should not impose itself as an element cancelling out all differences of approach and the necessary co-existence of descriptive paths. Every approach, originating in corporeal synaesthesia, cannot in the least cancel out, but to the contrary only emphasize, the specificity of its genesis' paths «making sense» of the judgement and of the mode of apprehension of representations, i.e. of the layers constituting the life-world.

In view of such a complex set of approaches, the epistemological status of the so-called neuroaesthetics – and similar neuro-philosophies – appears to be then still very vague, uncertain in its aim, blind in front of its fathers, and sometimes ungrateful in the recognition of its debts to psychological perspectives, that are fully un-acknowledged also in those realms where they have much to teach in the very same field of enquiry (as for instance is the case with Arnheim).

In conclusion, we shall remark that we are the ones entertaining a relationship with the world, not our neurons. Neuroscience has the task, from the point of view of a phenomenologist, to clarify how the structure of experience presented by phenomenological researches is translated into neurological complex, once agreed that mirror neurons, for instance, are triggered also when no experience of the other takes place, for instance when a mechanic arm, certainly deprived of the perception of alterity, holds a cup of coffee and hands it over to us.

In short, there is nothing to object if the work of art becomes an original tool for scientific enquiries and an excellent manual through which to discover the beauty of our brain. However, if this entails a minimization of the symbolic complexity of the work of art, of its layers of visibility, of the relationship it triggers between visible and invisible, between presence, representation and implicit value, then methodological, or better «stylistic» errors in the research should be reported. The philosophical research in aesthetics adopts indeed an other style, that accounts for the objects of its enquiry rather differently, that means through description and not through «explanation». The works of art as well as empathy, with their meaning, constitute «symbolic» processes that should be analysed by grasping their complex value within a structure of reference that certainly includes – primarily – the brain, but that should not be elucidated through the mechanics of neurology.

The corporeal implications of experience cannot indeed be «objectivated». A cultural object, for instance a work of art, can never be grasped as a mere series of causes and effects, as the processes leading to its production and reception can be described within a motivational chain, not aiming at providing an «explanation», but rather



at detecting those acts through which value judgements are given, as well as the cultural and teleological value of the phenomenon. Finally, the point is to become aware that every phenomenon, also a work of art, together with the processes leading to its shaping and reception, can be the object of any desired descriptive enquiry. However, this does not amount to saying that, without a suitable approach, – beyond a merely intellectual exercise, that is to say not primarily interested in the understanding of its cognitive nucleus, – the works of art can be analysed as one may wish. The issue is then, perhaps, to establish some methodological and theoretical premises to circumscribe the ground: 1. not every object reveals its essence going back to its «mental» and corporeal roots. They can «resist» such an interpretation as they refuse to be connected to quantitative schemes, definite images, explanatory paths and cerebral processes. Their motivations, the complexity of the layers of meaning presiding over their reception or production, should be questioned again and again from an «historical» point of view by «historical» bodies. They therefore reveal to an objective eye and to exclusively mental bodies some extrinsic cognitive aspects that end up being assimilated to objectual features from which instead they should possibly be told apart. 2. This would lead us to believe that the methodological model should change according to the point of view and to the methodological and scientific aim; the philosopher does not aim at «explaining», but rather at showing differences, defining methodological premises, and clearly stating that the point of view must change according to what the object is, that means according to the «reducibility» of its qualities to several points of view. A work of art, then, can benefit from *the neuroaesthetics' perspective in order to understand the mind, not the object of mental experience*. 3. This entails the need to distinguish on a methodological level the realm of the mind and brain from that of intentional acts of consciousness that must grasp what the objects request, adapting to them experiential specificities.

The main task of the philosophical research, bracketed by the new «neuro» researches, thus emphasizing their theoretical limits as soon as they depart from experimental enquiries, is then to understand the conditions of possibility of cognitive procedures, that is to say, in other words, the genesis of consciousness that in aesthetics becomes «the genesis of aesthetic consciousness». Interdisciplinarity is already an ancient and out of fashion word, now it is the time of «dialogue», being aware however that the «*logoi*» not always require synthesis, and that the unity of the corporeal reality implies, as Husserl emphasizes, very different descriptive behaviours.

In 1993, when the neuromania had not yet exploded, and no one feared the anti-scientism anathema when discussing the relationship between mind, consciousness and brain, Alfredo Civita observed that it was hard not to support a «monistic» claim in the analysis of the subjective and intersubjective «feeling». The brain, the mind and the organism form indeed an essential unity, and every splitting «Descartes» style appears in all its limits. He also remarked, however, that such a monism cannot «be maintained facing knowledge's requirements»: «The biological unity of the human organism entails such a qualitative differentiation between the realm of cerebral processes and that of mental processes as to make a decoupling of the conceptual systems employed while knowing and acting in those two realms necessary» (Civita [1993]: 187; my transl.). Whenever such an awareness is missing, as we emphasized several times already, while chasing a monism one ends up falling into objectivism, mistaking metaphysical dualism for the necessary duality of enquiring behaviours. If one aspires to reach acceptable levels of scientificity, one must be aware of the methodological differences derived from the differences in the objectual and cognitive structure. To forget the «representational» and methodological differences within a vague monism, very often only nominalistic, means to pursue, unawarely, metaphysical dreams, thus appearing, as Kant would have said, similar to a visionary.

Similarly, Michele Di Francesco writes that the issue is not to put up new dualisms, but rather to thoroughly understand that sort of «double nature» of the human subject, taking «culture as the natural development of human biology» (Di Francesco [1998]: 304; my transl.). In short, then, the issue is to account for the «difference», that is not «substantial» (i.e. pertaining to the topic, to the «object», as we stand anyway in front of «natural» realms, included in the surrounding world, although they are described through different attitudes), but rather pertaining, precisely, to the method of observation, revealing several angles. From this standpoint, therefore, that we can «start over again», fully aware that a biological unity cannot be reduced to an epistemological unity, as not to miss, of the images crossing our experience, that invisible symbolic meaning that keeps increasing its knowledge value, expressing the «secret and feverish genesis of things in our body» (Merleau-Ponty [1960]: 128).

#### Bibliography

- Boella, L., 2008: *Neuroetica. La morale prima della morale*, Cortina, Milano.
- Cappa, S.F., 2007: *Arte e immagine corporea: considerazioni neurologiche*, in G. Lucignani, A. Pinotti (eds.), *Immagini della mente*, Cortina, Milano, 2007, pp. 121-134.

- Cappuccio, M. (ed.), 2006: *Neurofenomenologia. Le scienze della mente e la sfida dell'esperienza cosciente*, Bruno Mondadori, Milano.
- Civita, A., 1993: *Saggio sul cervello e la mente*, Guerini, Milano.
- Di Francesco, M., 1998: *L'io e i suoi sé. Identità personale e scienza della mente*, Cortina, Milano.
- Gallese, V., forthcoming: *Neuroscienze e Fenomenologia*, «Enciclopedia Treccani».
- Gallese, V., 2006: *Corpo vivo, simulazione incarnata e intersoggettività. Una prospettiva neuro-fenomenologica*, in M. Cappuccio (ed.), *Neurofenomenologia. Le scienze della mente e la sfida dell'esperienza cosciente*, Bruno Mondadori, Milano.
- Gallese, V., Freedberg, D., 2007: *Empathy, motion, emotion in esthetic experience*, "Trends in Cognitive Sciences", 11, 5, pp. 197-203.
- Legrenzi, P., Umiltà, C., 2009: *Neuromania. Il cervello non spiega chi siamo* Il Mulino, Bologna.
- Maffei, L., 2007: *I diversi sentieri della memoria e l'arte visiva*, in G. Lucignani, A. Pinotti (eds.), *Immagini della mente*, Cortina, Milano, 2007, pp. 69-81.
- Maffei, L., Fiorentini, A., 1995: *L'arte e il cervello*, Zanichelli, Bologna.
- Merleau-Ponty, M., 1960: *Eye and Mind*, transl. by M. Smith, in G.A. Johnson, M.B. Smith (eds.), *The Merleau-Ponty Aesthetics Reader*, Northwestern University Press, Evanston, 1993, pp. 121-149.
- Umiltà, C., 2009: *Interview with Carlo Umiltà*, "Brainfactor", April 1st.
- Varela, F.J., 1979: *Principles of Biological Autonomy*, Appleton & Lange, New York.
- Varela, F.J., 1989: *Connaître: Les sciences cognitives, tendances et perspectives*, Seuil, Paris.
- Vidal, F., 2009: *Brainhood. Antropological Figure of Modernity*, "History of Human Sciences", 22, 1, pp. 5-36.